



OW Management Report for Hurricane Harvey and Hurricane Irma – September 11, 2017 EOC Water Desk

Hurricane Harvey Update (note: Hurricane Irma report starts on page 5)

Background:

Response and recovery efforts continue throughout the Gulf Coast of TX and LA. Rivers continue to recede in the region, however major to record levels will persist through this week for several areas, including Houston and Beaumont.

Federal Activities:

FEMA has activated the NRCC at Level 1 with all Emergency Support Functions (ESFs) and deployed National and several regional Incident Management Assistance Teams (IMATs). FEMA's Region 6 RRCC is also at Level 1.

State Activities:

The TX SEOC remains at full activation, while the LA SEOC remains at Level III (24 hours).

EPA HQ:

Water Desk Staffing for the coming week is as follows:

Monday 9/11: Kevin Tingley and David Goldbloom-Helzner

Tuesday 9/12: David Goldbloom-Helzner

Wednesday 9/13: Jeff Fencil

Thursday 9/14: David Goldbloom-Helzner

Friday 9/15: Kevin Tingley

EPA Activities: Region 6:

Recovery Activities: The Governor of Texas sent a letter to Administrator Pruitt on September 8 about the use of State Revolving Funds to fund immediate recovery and resilience efforts for the water, wastewater and stormwater infrastructure in Texas. The National Disaster Recover Framework (NDRF) has been activated. Also, Region 6 staff have been deployed to the Joint Field Office in Austin to address recovery of water and wastewater infrastructure and other recovery support functions.

Outreach: 20 Community Liaisons have been deployed and will be directed to strategic locations within impacted counties. The Community Liaisons will distribute information to assist citizens with common environmental and health issues they might face following a flood.

Private Domestic Drinking Water Wells Sampling Under ESF-8: EPA continues make contact with the remaining 18 counties regarding private water well testing and our research indicates that private well testing is available across the



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state for a nominal fee. EPA has confirmed 21 of the 39 disaster declaration counties are currently providing private well testing for area residents. Texas Department of State Health Services also offer bacteria testing for \$28 through the state lab. The TCEQ website provides public information and a list of NELAP Accredited Labs for well owners to analyze water samples for a fee.

Drinking Water / Wastewater Assessments

EPA is providing support to TCEQ for drinking water and wastewater system assessments. Ten EPA personnel are conducting drinking water assessments in the Houston Branch, while an additional five personnel are conducting wastewater assessments.

The 3 tables below show the status of DW systems and the DW/WW assessments as of September 10, 2017.

Drinking Water and Waste Water Assessments (September 10, 2017)		
Assessment Types	Daily Assessments	Total Assessments
On-Site DW Assessments	44	391
On-Site WW Assessments	24	265
Phone DW Assessments	33	5033
Phone WW Assessments	4	3027

Drinking Water: **No update since 9/9/17.** Both EPA and the TCEQ are contacting remaining systems to gather updated information of their status. Assistance teams are in the field working directly with system operators to expedite getting systems back to operational status.

	Number of Drinking Water Systems	Population
Fully Operational	1,924	NA
Boil Water Notices	161	NA
Shutdown	52	NA
Awaiting update	101	NA

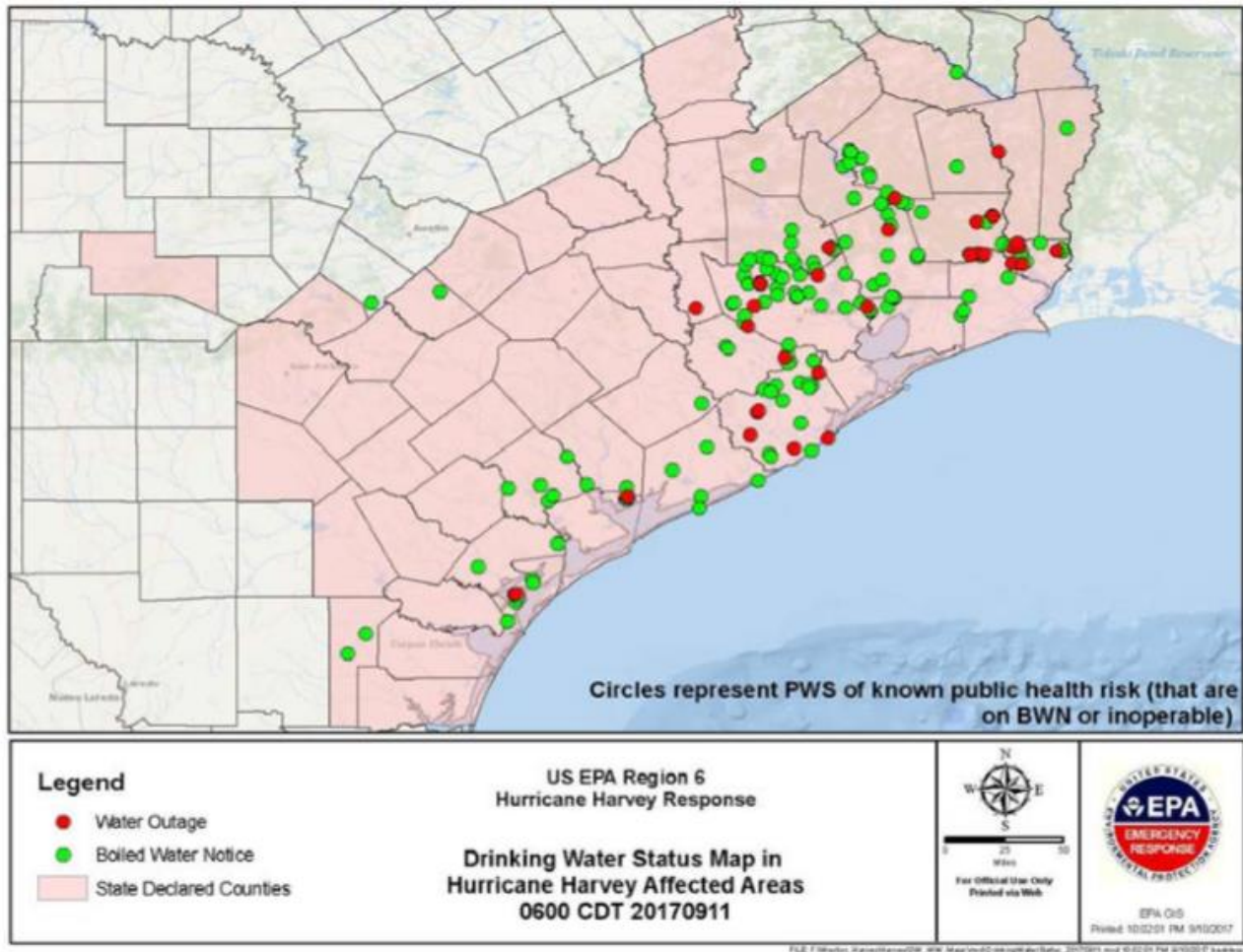
Wastewater and Sewage: **No update since 9/9/17.**

	Number of Wastewater Treatment Plants
Fully Operational	1,219
Inoperable	40
Other/unknown	35



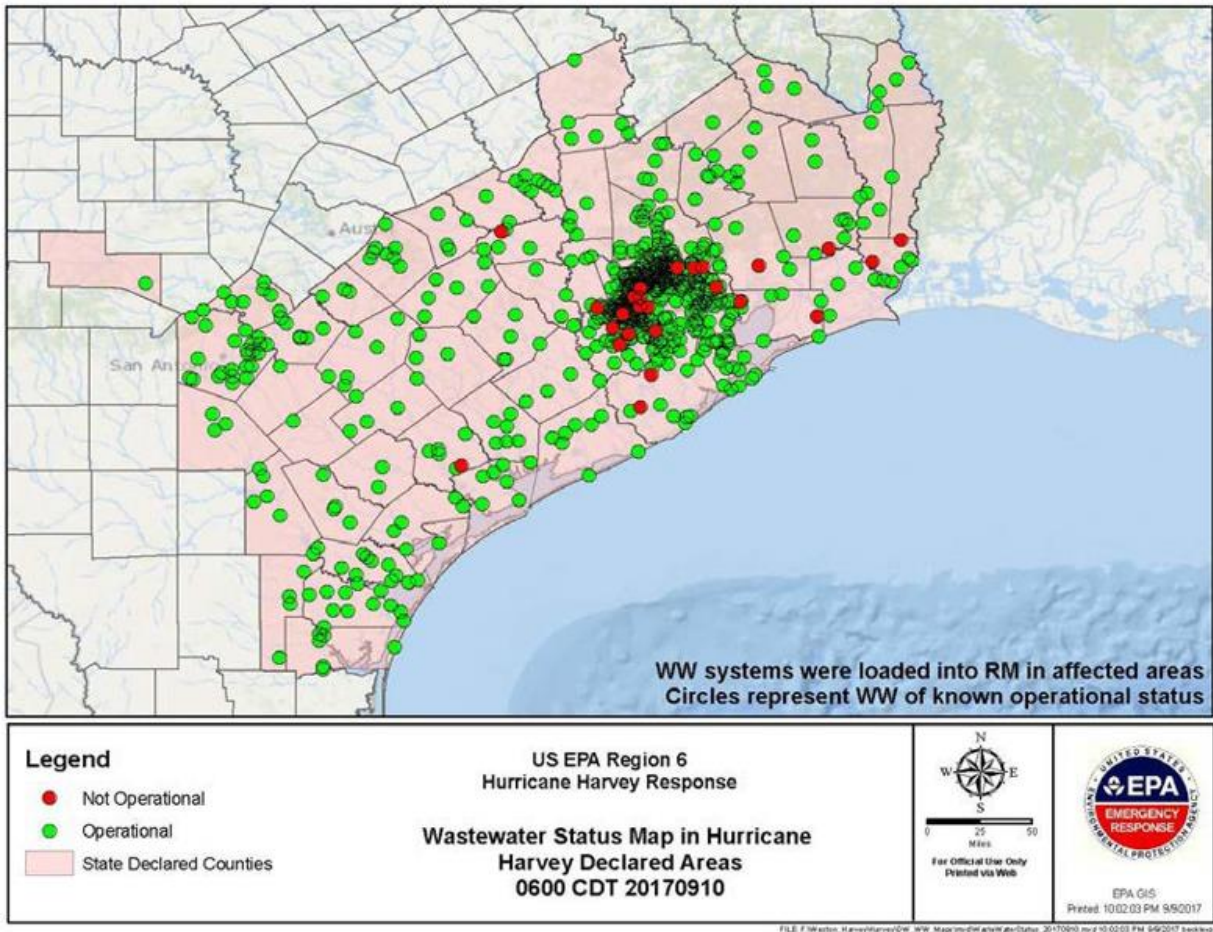
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Below are two maps that show the status of drinking water and wastewater facilities in the affected areas.





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Hurricane Irma Update

Background:

Hurricane Irma has been downgraded to a Tropical Storm with significant wind and rain. The storm center is currently in the vicinity of Gainesville, Florida with sustained winds near 70 miles per hour (mph). The storm is moving north-northwest at 15 to 20 mph.

Local/State Activities:

Puerto Rico and U.S. Virgin Islands

The PR Emergency Operations Center and USVI Territorial Emergency Management Agency are at Full Activation. The respective Governors have declared states of emergency. The PR National Guard and USVI National Guard have been activated.

Florida

Florida is currently operating at their highest level of activation - Level 1, with the State Emergency Operations Center (SEOC) staffed by Division of Emergency Management personnel and all Emergency Support Functions. Florida has issued a state of emergency in all 67 counties within the state of Florida. The Governor has issued a mandatory evacuation that covers Miami-Dade County, Broward County east of US-1, Palm Beach County, low-lying parts of Brevard County, coastal and low-lying areas of Jacksonville and Duval County, and Monroe County (Florida Keys). The Florida SEOC is sending a forward team near Jacksonville Florida (Camp Blending) to prepare a Continuing Operations (COOP) location in the event the Florida EOC needs to be evacuated due to the storm's anticipated path.

Georgia

The Georgia SEOC is currently operating at a Level 1 (full activation and fully staffed) activation. On September 10, 2017, the Governor extended a State of Emergency for the remaining 65 counties and now the State of Emergency covers all 159 counties. The Governor also issued a mandatory evacuation order starting September 9, 2017, for all areas east of I-95 and other parts of the Georgia coast. The USCG closed ports in Savannah, Georgia, around noon on September 9, 2017.

South Carolina

The South Carolina SEOC is currently operating at Level 1 (full operation) activation. On September 7, 2017, an emergency declaration issued by FEMA authorized emergency protective measures (Category B), including direct federal assistance, under the Public Assistance program at 75 percent federal funding. This includes all 46 South Carolina counties and the Catawba Indian Nation.



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North Carolina

North Carolina SEOC is currently operating at Level 4 activation. They are monitoring Irma's path and EPA is maintaining communication with the State to determine if EPA assistance is needed. EPA will develop data as the storm system moves closer to North Carolina.

Alabama

The Alabama Emergency Management Agency (EMA) is currently operating the SEOC at Level 1 (full operation) activation. Four Operations Centers have also been activated along the states eastern border. Five EMA Divisions along the eastern and southeastern border of the state are on stand-by to begin operations Monday, September 11, 2017.

Mississippi

The Mississippi SEOC is currently operating at Level 4 activation.

Tennessee

Has not declared a state of emergency at this time.

Region 4 Federally Recognized Tribes in Potential Storm Path

Region 4 continues to coordinate with the Bureau of Indian Affairs. Tribes of concern include Seminole Tribe of Florida, Miccosukee Tribe of Indians of Florida, Catawba Indian Nation (South Carolina), Eastern Band of Cherokee Indians (North Carolina) and Poarch band of Creek Indians (Alabama)

Federal Activities:

The FEMA National Response Coordination Center (NRCC) remains at Level I (24/7 operations, Full ESFs) in response to Hurricanes Harvey and Irma. The FEMA Region II Regional Response Coordination Center (RRCC) is at Full Activation.

FEMA RRCC currently have a Mission Assignment for Federal Operations Support (FOS) for \$35,000 to staff the FEMA RRCC and the Florida State EOC.

EPA Activities: Region 2:

Region 2 currently has 6 FEMA Mission Assignments (MA) for pre-deployment planning, implementation, and deployment of personnel for damage assessments on St. Thomas, St. Croix and St. John in the U.S. Virgin Islands, and Puerto Rico, including the islands of Vieques and Culebra.

EPA Activities: Region 4:



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The EPA Region 4 Water Protection Division (WPD) received funding totaling \$75,000 under an ESF-3 Mission Assignment (MA) sub-task to support the U.S. Army Corps of Engineers (USACE) drinking water and wastewater facility assessments. The request specified provision of three technical experts for a duration of 14 days. The personnel will be deployed to the USACE ESF-3 desk. WPD staff have been identified.

The EPA continued to coordinate with the FDEP and the USACE relative to Water and Drinking Water issues. Additionally, the USACE has indicated they may request Region 4 assistance with sampling activities associated with bringing the Water/Drinking Water facilities back on line.

Drinking Water / Wastewater Assessments:

Region 2:

Puerto Rico Drinking Water Status: As of 730 AM on 9/11/17, **61,980** PRASA service connections are without drinking water. Each service connection serves 3 people (estimate). PRASA serves 96% of the PR population (3,411,000 in 2016). We estimate **185,940** people are without drinking water from PRASA, mostly in the north/metro region. PR remains under a boil water notice. PRDOH is back to functionality and is going to start the coordination of inspections to check operational status of the drinking water systems.

All PRASA and PREPA waste water treatment plants are in service.

<u>System ID</u>	<u>Name</u>	<u>Pop. Served</u>	<u>Status</u>
PR0666056	La Cuchilla	400	No power Need a generator
PR0523105	Acueducto Dona Elena	1016	Needs to be assessed
PR0604046	Mulitas Centro	1000	Needs to be assessed
PR0613046	Turabo Arriba	1200	Needs to be assessed
PR0613366	Acueducto Sector La Sierra	2100	Needs to be assessed
PR0677016	Acueducto Rural Tejas	2460	Needs to be assessed
PR0677146	Calabazas Arriba	1800	Needs to be assessed

Note: PRASA continues to update their drinking water information 3 times a day.



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USVI Drinking Water Status: No change from yesterday. DPNR reports that all St. Croix drinking water and waste water facilities are fully functional. St. Croix is currently under a Drinking Water advisory due to the heavy rains. St. Croix has a fully functional testing lab. DPNR reports (based on limited information) that St. Thomas and St. John are under a Boil Water advisory. Some of the drinking water storage tanks in St. Thomas survived the storm. VIWAPA expects to commence gravity feeding drinking water today on St. Thomas. DPNR is unable to get staff to St. Thomas due to the storm damage. St. Thomas laboratory is currently offline due to lack of power and needs a generator. There is no information available on the drinking water and wastewater situation in St. John.

Region 4:

USEPA Region 4 SEDS's Mobile Laboratory is prepared to conduct the following analyses for Drinking Water if assistance is needed by our Region 4 States. Analysis includes total coliform, E. coli, fecal coliform, and enterococcus. Contact has been made with the Seminole and Miccosukee Tribes in South Florida and EPA drinking water support and response capabilities were discussed.

The WPD compiled an inventory of community drinking water systems (CWS) and publicly owned wastewater treatment plants (POTW) that may be used during post storm damage assessment (see Tables 1 and 2 below).

Table 1
Total Number of Community Drinking Water Systems (CWS) and Total Population Served
within Region 4 States and Tribal Lands

State or Tribe	Number of CWS	Population Served
Alabama	514	5,607,481
Florida	1631	19,917,363
Georgia	1749	8,917,820
South Carolina	583	3,795,571
North Carolina	1999	8,250,007
Tennessee	472	6,921,665
Catawba (SC)	2	715
Cherokee (NC)	4	10,099
Miccosukee (FL)	1	500
Poarch (AL)	1	750
Seminole (FL)	4	7,610



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Table 2 Total Number of Publically Owned Wastewater Treatment Plants (POTWs)		
State or Tribe	POTW	Other WWTP of Concern
Alabama	374	To be determined.
Florida	2,410*	To be determined.
Georgia	572	To be determined.
South Carolina	172	To be determined.
North Carolina	396	To be determined.
Tennessee	372	To be determined.
Catawba (SC)	0	
Cherokee (NC)	1	
Miccosukee (FL)	0	
Poarch (AL)**	1	
Seminole (FL)	4	

* Total number of facilities in Florida's StormTracker application, which includes POTWs, non-permitted WWTPs, and industrial facilities of concern. The number will be refined as information becomes available.

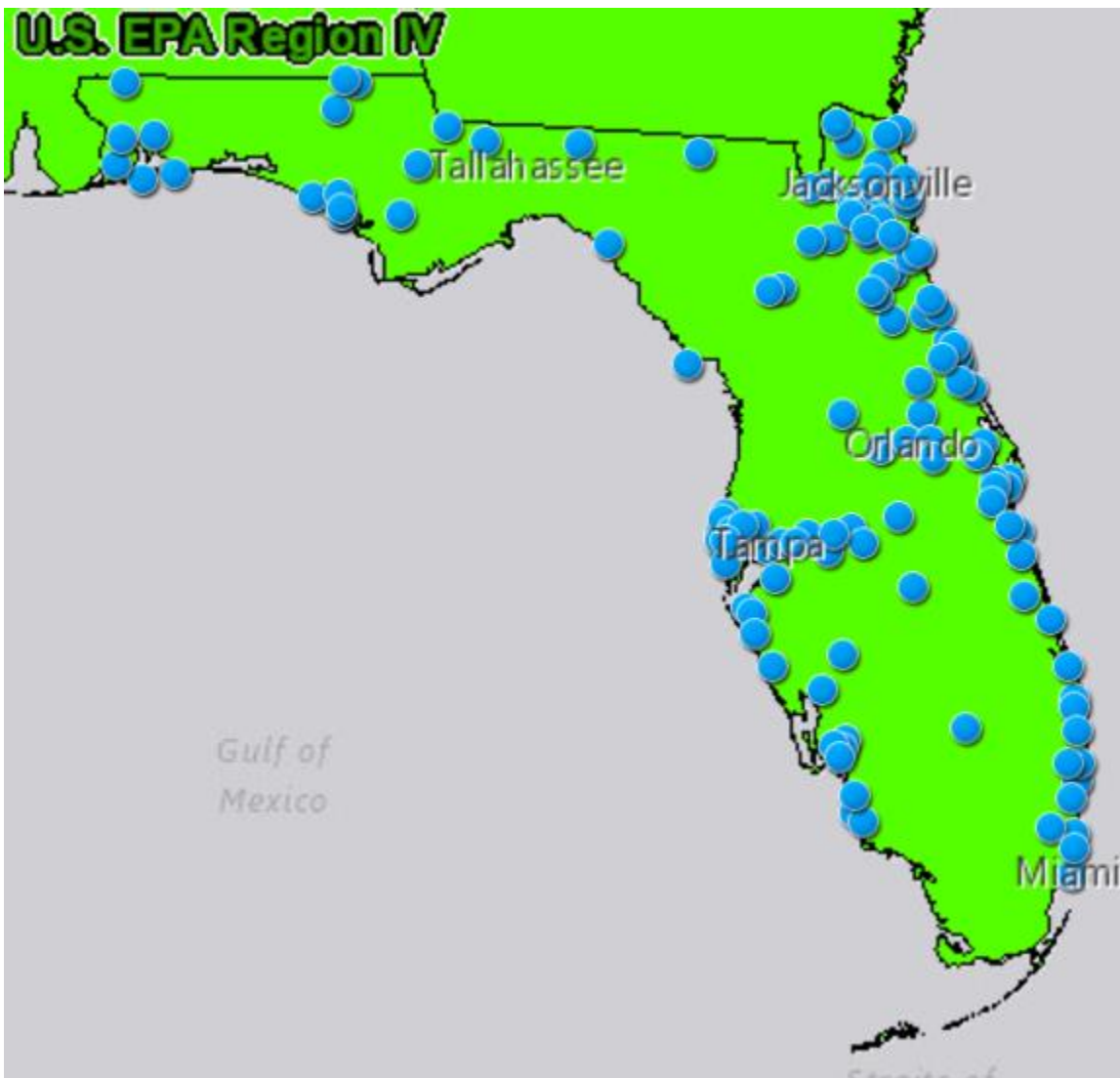
** Lagoon system is on tribal lands. Discharge is to State waters (State issued permit)



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The following two maps show locations of Water System Assessments to be performed in the coming days.

Florida Water System Assessment Locations





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Georgia Water System Assessment Locations

